

**REMARKS**

**I. Status of the Claims**

Claims 1-37 are pending in this application. Applicants acknowledge and appreciate the Examiner's indication that claims 4-11 and 20-30 contain allowable subject matter. Claims 1-3, 12-19, and 31-37 stand rejected. No claims have been amended in this Reply.

**II. Rejection Under 35 U.S.C. § 103(a)**

Claims 1-3, 12-19, and 31-37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,375,939 to Dubief et al. ("Dubief"). *Office Action* at pp. 2-3. Applicants respectfully traverse this rejection for the reasons set forth below.

Dubief teaches compositions comprising, in a cosmetically acceptable medium, at least one antidandruff agent and at least one amphoteric polymer as recited therein. Dubief seeks to provide compositions for "effectively combating dandruff while at the same time providing good properties, in particular in terms of softness and disentangling of the hair." Col. 1, ll. 24-27. The antidandruff agents of Dubief can be chosen from antifungal and/or antibacterial agents, including, among many others, selenium sulfide<sup>1</sup> or cadmium sulfide. Col. 6, ll. 15-17. Dubief further states that his compositions can be in the form of, among other things, a shampoo or a dyeing or bleaching composition. Col. 9, ll. 1-3 and ll. 26-28.

The Examiner concedes that the present claims "differ from the reference by reciting luminescent semiconductive nanoparticle capable of emitting under the action [of] a light excitation, radiation with a wavelength ranging from 400 to 700 nm." *Office*

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<sup>1</sup> Applicants note that selenium sulfide does not fall within the scope of at least claims 2, 3, 18, and 19.

*Action* at p. 2. The Examiner further concedes that the reference does not teach the presently claimed nanoparticle diameters. *Id.* Nevertheless, the Examiner alleges that, based on the teachings of Dubief, it would have been obvious for one of ordinary skill in the art "to formulate a composition for dyeing hair that comprises luminescent semiconductive nanoparticle for emitting radiation with a wavelength ranging from 400 nm to 700 nm and having the claimed particle diameters because the reference teaches a composition comprising cadmium sulfide and Selenium sulfite [sic]." Applicants disagree.

As the Examiner notes, Dubief neither teaches nor even remotely suggests a luminescent semiconductive nanoparticle capable of emitting, under the action of a light excitation, radiation with a wavelength of 400 nm to 700 nm. M.P.E.P. § 2143 requires that, for a *prima facie* case of obviousness to be established, a cited reference must teach or suggest all the limitations of the pending claims. This is not the case here.

The Examiner further alleges that the cadmium sulfide and selenium sulfide of Dubief are capable of emitting radiation "similar" to the claimed wavelength and having "similar" diameters. But the Examiner points to no teaching or suggestion in Dubief that any of his antidandruff agents, including cadmium sulfide and selenium sulfide, are luminescent semiconductive nanoparticles as presently claimed. And Dubief himself provides no guidance whatsoever on this point. The Examiner also points to no teaching or even a remote suggestion in Dubief of the presently claimed diameter ranges of the luminescent semiconductive nanoparticle of 1-100, 1-50 and 1-20 nm. (Claims 12-14 and 28-30.) These elements of the present claims are simply not suggested by Dubief.

Furthermore, nothing in the reference suggests the desirability for the antidandruff agents of Dubief to have such properties. See M.P.E.P. 2143.01. To support the conclusion that the claimed combination is directed to obvious subject matter, either the reference must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the reference teachings. *Ex Parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (emphasis added). Applicant respectfully submits that the Examiner has failed to meet either requirement here.

For at least these reasons, the Examiner has failed to establish a prima facie case of obviousness. Accordingly, Applicants respectfully request withdrawal of this rejection.

### III. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and allowance of the pending claims.


Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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By: \_\_\_\_\_

  
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